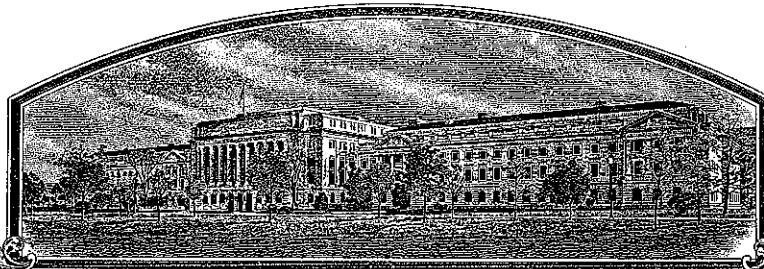


No.

200500221



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Syngenta Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Coker 9436'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventeenth day of March, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

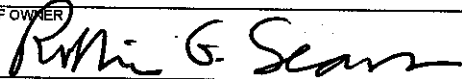
1. NAME OF OWNER Syngenta Seeds, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME B970051	3. VARIETY NAME COKER 9436
4. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code, and Country) P.O. Box 959 Minneapolis, MN 55440 Attn: Rollie Sears		5. TELEPHONE (include area code) 763-593-7333	FOR OFFICIAL USE ONLY PVPO NUMBER 2005 00221 FILING DATE April 21, 2005
		6. FAX (include area code) 763-542-0194	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation	8. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware	9. DATE OF INCORPORATION 1976	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Rollin Sears Syngenta Seeds, Inc. 6515 Ascher Road Junction City, KS 66441			FILING AND EXAMINATION FEES: \$ 3652.00 DATE 4/21/2005 CERTIFICATION FEE: \$ 768.00 DATE 3/03/06
11. TELEPHONE (Include area code) 785-210-0218	12. FAX (Include area code) 785-210-0231	13. E-MAIL Rollin.Sears@Agripro.com	
14. CROP KIND (Common Name) Common Wheat	16. FAMILY NAME (Botanical) Poaceae	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP Triticum aestivum	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 63(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23)	
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED	
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input checked="" type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Fall 2004, U.S.A. Registered Seed Sales IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER



SIGNATURE OF OWNER

NAME (Please print or type)

Rollin Sears

NAME (Please print or type)

CAPACITY OR TITLE

Senior Development Manager

DATE

4/10/05

CAPACITY OR TITLE

DATE

Coker 9436**Exhibit A: Origin and Breeding History**

COKER 9436 is a soft red winter wheat line developed by Syngenta Seeds, Inc. from a cross-made in 1990. The pedigree is COKER 9907/IL84-3010. COKER 9907 is a variety released by Syngenta Seeds, Inc. in 1990. IL84-3010 is an unreleased line developed by the University of Illinois. The pedigree is Caldwell/Tyler. Caldwell is a variety released by Purdue University Agricultural Experiment Station in cooperation with USDA-ARS in 1981. Tyler is a variety released by Virginia Agricultural Experiment Station in 1980. A bulk breeding system was used to develop COKER 9436. An F6 derived head row was selected, with yield testing initiated in the 1997-98 season at the F8 generation. The line was designated B970051. Advanced and elite yield testing along with seed increase has been conducted since this time. In early generations, advancement was based on agronomic characteristics and disease resistance. Selection in advanced generations was based on yield, along with agronomic and disease characteristics.

Table 1: Development of COKER 9436

Season	Generation	Activity
1990		Cross
1990-91	F1	Bulk seed grown in the greenhouse.
1991-1992	F2	Bulk population grown in the field. Advancement based on height and disease resistance.
1992-1993	F3	Bulk population grown in the field. Advancement based on height, maturity and disease resistance.
1993-1994	F4	Bulk population grown in the field. Advancement based on maturity, straw strength and disease resistance.
1994-1995	F5	Bulk population grown in the field, selected 100 heads for head row nursery, advancement based on stripe rust resistance and agronomic traits.
1995-1996	F6	Head row nursery, selection based on maturity, stripe rust resistance and agronomic traits.
1996-1997	F7	Observation nursery #267, selection based on height, maturity and disease resistance.
1997-1998	F8	Preliminary yield testing, assigned line number B970051. Advancement based on yield, height and disease resistance.
1998-1999	F9	Yield testing in advanced company trials, small increase at Bay, Arkansas. Advancement based on yield, agronomic traits and stripe rust resistance.
1999-2000	F10	Yield testing in elite company trials, small increase with nested head rows for purity; advancement based on yield, height, straw strength, stripe rust and Septoria tritici resistance.

COKER 9436**Exhibit A: Origin and Breeding History of the Variety (cont.)**

2000-2001	F11	Yield testing in elite company trials, small increase with nested plots for purity, advancement based on yield, uniformity, maturity and disease and insect resistance.
2001-2002	F12	Yield testing in elite company trials, pre-breeder increase and tested in Uniform Eastern Soft Red Winter Wheat Nursery. Advancement based on yield, agronomic traits and disease resistance.
2002-2003	F13	Yield testing in elite company trials, large breeder increase. Advancement based on yield, agronomic traits and disease resistance.
2003-2004	F14	Continued testing in company trials and entered in state trials with Breeder/Foundation seed increase. Advancement based on yield, agronomic data and disease resistance.
2004-2005	F15	Continued testing in company trials and state trial testing. Variety released as COKER 9436 and Registered seed sold to TGN Certified Seed Growers in the Fall 2004.

COKER 9436 is an F6 derived head row with yield testing initiated as an F8 in 1997-1998. The variety has been tested and observed for 7 years with 6 years of seed increase. COKER 9436 is stable and uniform. Breeder seed was developed by bulking seed from head row generated increase strips that had been maintained separately for three (F10, F11, and F12) generations of increase for purity, uniformity and stability comparisons. Variants may include one or more of the following in any combination; taller, awned, bronze or later type, which maybe expressed up to 1%.

COKER 9436**Exhibit B: Statement of Distinctness**

COKER 9436 most closely resembles COKER 9907, however COKER 9436 has a prostrate growth habit where COKER 9907 has a semi-erect growth habit. COKER 9436 has a green color (Munsell Color Chart 5GY 4/6 – 4/8) at boot stage while COKER 9907 has a yellow green color (Munsell Color Chart 5GY 5/6 – 5/8). COKER 9436 is resistant to Hessian fly biotype E; COKER 9907 is susceptible to Hessian fly. COKER 9436 averages 3 inches shorter than COKER 9907.

Table 2: Distinctness

HESSIAN FLY BIOTYPES

			2002	2004	1991	1992
	Plant Color at Boot	Growth Habit	E	E	E	E
COKER 9436	Green	Prostrate	9/2	13/0	--	--
COKER 9907	Yellow Green	Semi-erect	--	--	3/13	0/11

= Resistant/Susceptible seedlings.

Screening done by USDA-ARS, Crop Production and Pest Control Research Unit, West Lafayette, IN.

HEIGHT (in)	COMB	BAR	HKY	BMO	DAR	MMS	LAR	WNC
COKER 9436	32	33	29	33	38	28	34	30
COKER 9907	35	35	35	38	39	34	36	32
AVG	35	35	34	35	41	33	38	31
# TRIALS/REPS	7	2	1	1	1	1	1	1
LSD (0.05)	2	4.1						
CV	6.0	5.9						

Data from 2004 COMB = combined across 7 locations. BAR: Bay, AR; HKY: Hopkinsville, KY; BMO: Bernie, Mo; DAR: Dewitt, AR; MMS: Macon, MS; LAR: Lewisville, AR; WNC: Winterville, NC. BAR was 2 reps and all other location are 1 rep.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S) Syngenta Seeds, Inc.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or RD No., City, State, and Zip Code) P.O. Box 959 Minneapolis, MN 55440 ATTN: Rollin Sears	PVPO NUMBER 200500221
	VARIETY NAME COKER 9436
	TEMPORARY OR EXPERIMENTAL DESIGNATION B970051

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. or) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: Munsell Color Chart

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

- 1=Common
2=Durum
3=Club
4=Other (SPECIFY): _____

2. VERNALIZATION:

- 1=Spring
2=Winter
3=Other (SPECIFY): _____

3. COLEOPTILE ANTHOCYANIN:

- 1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

- 1 = Prostrate 2 = Semi-erect 3 = Erect

5. PLANT COLOR (boot stage):

- 1 = Yellow-Green
2 = Green
3 = Blue-Green

MCC 5GY 4/6-4/8

6. FLAG LEAF (boot stage):

- 1 = Erect
2 = Recurved

- 1 = Not Twisted
2 = Twisted

- 1 = Wax Absent
2 = Wax Present

7. EAR EMERGENCE:

Number of Days (Average)

Number of Days Earlier Than _____ *

Same as _____ *

Number of Days Later Than Pioneer Brand 25R26 *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

200500221

8. ANTHER COLOR:

☐ 1 = Yellow
☐ 2 = Purple

9. PLANT HEIGHT (from soil to top of head, excluding awns):

☐ 0 ☐ 8 ☐ 3 cm (Average)

☐ ☐ cm Taller Than _____ *

Same as _____ *

☐ 1 ☐ 0 cm Shorter Than Patton _____ *

10. STEM:

A. ANTHOCYANIN

☐ 1 = Absent
☐ 2 = Present

B. WAXY BLOOM

☐ 2 = Absent
☐ 2 = Present

C. HAIRINESS

(last internode of rachis)

☐ 1 = Absent
☐ 2 = Present

D. INTERNODE

☐ 1 = Hollow 2 = Semi-solid 3 = Solid

☐ Number of Nodes

E. PEDUNCLE

☐ 3 = Erect 2 = Recurved 3 = Semi-erect

☐ 2 ☐ 8 cm Length

F. AURICLE

☐ 1 Anthocyanin 1 = Absent 2 = Present

☐ 2 Hair 1 = Absent 2 = Present

11. HEAD (at Maturity):

A. DENSITY

☐ 2 = Lax
☐ 2 = Middense (Laxidense)
☐ 3 = Dense

B. SHAPE

☐ 1 = Tapering
☐ 2 = Strap
☐ 3 = Clavate
☐ 4 = Other (SPECIFY): _____

C. CURVATURE

☐ 3 = Erect
☐ 2 = Inclined
☐ 3 = Recurved

D. AWNEDNESS

☐ 2 = Awnless
☐ 2 = Apically Awnletted
☐ 3 = Awnletted
☐ 4 = Awned

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12. GLUMES (at Maturity):

A. COLOR

- ☐ 2 1 = White
2 = Tan
3 = Other (SPECIFY): _____
MCC 2.5Y 8/4

B. SHOULDER

- ☐ 5 1 = Wanting 2 = Oblique
3 = Rounded 4 = Square
5 = Elevated 6 = Apiculate
7 = Other (SPECIFY): _____

C. SHOULDER WIDTH

- ☐ 3 1 = Narrow
2 = Medium
3 = Wide

D. BEAK

- ☐ 3 1 = Obtuse
2 = Acute
3 = Acuminate

E. BEAK WIDTH

- ☐ 3 1 = Narrow
2 = Medium
3 = Wide

F. GLUME LENGTH

- ☐ 3 1 = Short (ca. 7mm)
2 = Medium (ca. 8mm)
3 = Long (ca. 9mm)

G. WIDTH

- ☐ 1 1 = Narrow (ca. 3mm)
2 = Medium (ca. 3.5mm)
3 = Wide (ca. 4mm)

13. SEED

A. SHAPE

- ☐ 1 1 = Ovate
2 = Oval
3 = Elliptical

B. CHEEK

- ☐ 1 1 = Rounded
2 = Angular

C. BRUSH

- ☐ 3 1 = Short 1 = Not Collared
2 = Medium 2 = Collared
3 = Long

D. CREASE

- ☐ 2 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

- ☐ 2 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. COLOR

- ☐ 3 1 = White MCC 7.5YR 7/4
2 = Amber
3 = Red
4 = Other (SPECIFY): _____

F. TEXTURE

- ☐ 2 1 = Hard
2 = Soft
3 = Other (SPECIFY): _____

G. PHENOL REACTION (see instructions):

- ☐ 1 = Ivory 4 = Dark Brown
2 = Fawn 5 = Black
3 = Light Brown Not tested.

H. SEED WEIGHT

- ☐ 3 ☐ 7 g/1000 seed (Whole number only)

I. GERM SIZE

- ☐ 2 1 = Small
2 = Midsize
3 = Large

14. Disease: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

<input type="checkbox"/> 0 Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>)	<input type="checkbox"/> 3 Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) Field Races 2002, 2004
<input type="checkbox"/> 3 Stripe Rust (<i>Puccinia striiformis</i>) Field races 2000, 2002, 2003, 2004	<input type="checkbox"/> 0 Loose Smut (<i>Ustilago tritici</i>)
<input type="checkbox"/> 0 Tan Spot (<i>Pyrenophora tritici-repentis</i>)	<input type="checkbox"/> 0 Flag Smut (<i>Urocystis agropyri</i>)
<input type="checkbox"/> 0 Halo Spot (<i>Selenophoma donacis</i>)	<input type="checkbox"/> 0 Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>)
<input type="checkbox"/> 0 <i>Septoria nodorum</i> (Glume Blotch)	<input type="checkbox"/> 0 Dwarf Bunt (<i>Tilletia controversa</i>)
<input type="checkbox"/> 0 <i>Septoria avenae</i> (Speckled Leaf Disease)	<input type="checkbox"/> 0 Karnal Bunt (<i>Tilletia indica</i>)
<input type="checkbox"/> 3 <i>Septoria tritici</i> (Speckled Leaf Blotch)	<input type="checkbox"/> 3 Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>) Field Races 2003, 2004
<input type="checkbox"/> 0 Scab (<i>Fusarium</i> spp.)	<input type="checkbox"/> 0 "Snow Molds"
<input type="checkbox"/> 0 "Black Point" (Kernel Smudge)	<input type="checkbox"/> 0 Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.)
<input type="checkbox"/> 0 Barley Yellow Dwarf Virus (BYDV)	<input type="checkbox"/> 0 Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>)
<input type="checkbox"/> 2 Soilborne Mosaic Virus (SBMV)	<input type="checkbox"/> 0 Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>)
<input type="checkbox"/> 1 Wheat Yellow (Spindle Streak) Mosaic Virus	<input type="checkbox"/> Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>)
<input type="checkbox"/> 0 Wheat Streak Mosaic Virus (WSMV)	<input type="checkbox"/> Other (SPECIFY) _____
<input type="checkbox"/> Other (SPECIFY) _____	<input type="checkbox"/> Other (SPECIFY) _____
<input type="checkbox"/> Other (SPECIFY) _____	<input type="checkbox"/> Other (SPECIFY) _____
<input type="checkbox"/> Other (SPECIFY) _____	<input type="checkbox"/> Other (SPECIFY) _____

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

<input type="checkbox"/> 2 Hessian Fly (<i>Mayetiola destructor</i>) Biotypes 0 and E.	<input type="checkbox"/> Other (SPECIFY) _____
<input type="checkbox"/> 0 Stem Sawfly (<i>Cephus</i> spp.)	<input type="checkbox"/> Other (SPECIFY) _____
<input type="checkbox"/> 0 Cereal Leaf Beetle (<i>Oulema melanopa</i>)	<input type="checkbox"/> Other (SPECIFY) _____
<input type="checkbox"/> 0 Russian Aphid (<i>Diuraphis noxia</i>)	<input type="checkbox"/> Other (SPECIFY) _____

15. INSECT: *Continued* (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

☐

Greenbug (*Schizaphis graminum*)

☐

Other (SPECIFY) _____

☐

Aphids

☐

Other (SPECIFY) _____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS

Exhibit D: Additional Description of COKER 9436**Table 3: Yield Data Bu/Ac**

	ALL LOCATIONS		NORTH MIDSOUTH		NORTHEAST		EAST COAST	
	1 YR	2 YR	1 YR	2 YR	1 YR	2 YR	1 YR	2 YR
COKER 9436	66	66	63	63	76	65	74	67
COKER 9663	67	68	63	63	71	66	70	66
COKER 9152	67	69	64	64	71	64	69	65
COKER 9184	66	62	62	59	77	65	79	70
COKER 9295	64	64	61	61	69	63	69	66
26R61	61	61	63	59	71	59	73	65
AGS 2000	68	67	69	65	71	64	69	65
Patton	67	66	64	61	76	65	76	68
25R26	71	68	69	65	80	66	80	69
Kaskaskia	61	63	62	62	67	58	66	60
Test Mean	65	67	64	63	72	64	71	67
Trials w/ Data	18	34	4	8	4	8	6	11
LSD (0.05)	4.5	3.6	7.1	6.0	8.8	NS	8	6.1
CV %	10.7	11.3	7.9	9.5	8.7	13.8	9.9	10.8
1 YR = 2004	2 YR = 2003 & 2004							

**2004 SYNGENTA SEEDS NAFTA WHEAT
LOCATIONS BY AREA**

ELITE	NAME	ALL	North Midsouth Cornbelt	NORTHEAST	East Coast
2003-2004	US BERNIE, MO 1110	BMO			
	US UNION CITY, TN 1120	UCTN			
	US HOPKINSVILLE, KY 1135	HKY			
	US COLUMBIA, MO 1140	CMO			
	US ST. JACOB, IL 1150	SJIL			
	US WAUSEON, OH 1170	WOH			
	US BAY, AR 2210	BAR	BAR		
	US DEWITT, AR 2220	DAR	DAR		
	US WHITEHALL, AR 2230	WAR	WAR		
	US MACON, MS 3310	MMS			
	US LEWISVILLE, AR 3330	LAR			
	US GREENVILLE, MS 3340	GMS			
	US PLYMOUTH, NC 4500	PNC		PNC	PNC
	US WINTERVILLE, NC 4510	WNC		WNC	WNC
	US KINSTON, NC 4520	KNC		KNC	KNC
	US WARSAW, VA 4530	WVA		WVA	WVA
	US PLAINS, GA 4600	PGA			PGA
	US HARTSVILLE, SC 4650	HSC			HSC
	US MOUNT JOY, PA 4710	MJPA		MJPA	MJPA
	US SMYRNA, DELAWARE 4750	SDE			SDE

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Table 4: Agronomic Characteristics

	Test Weight Lb/Bu		Heading Date from 4/1 at Bay, AR			Height Inches	Lodging 1 - 9		Juvenile Growth Habit 1 - 5		
	2002	2003	2002	2003	2004		2003	2004	2002 BMO	2003 BAR	2004 BAR
COKER 9436	57.6	53.7	4/24	4/24	4/23	33	2	4	2	2	2
COKER 9663	57.1	55.3	4/18	4/21	4/18	40	3	4	2	3	3
COKER 9152	56.4	54.5	4/19	4/18	4/17	39	2	3	2	3	3
COKER 9184	58.6	53.9	4/22	4/23	4/20	33	2	2	3	3	3
26R61	57.1	54.9	4/19	4/17	4/17	37	1	2	2	4	3
AGS 2000	56.6	54.4	4/17	4/16	4/17	36	3	4	3	4	4
PATTON	55.9	51.7	4/21	4/19	4/20	37	2	3	1	2	2
25R26	56.4	50.9	4/24	4/22	4/20	34	2	2	2	1	2
KASKASKIA	59.0	56.1	4/24	4/25	4/24	38	2	3	2	1	1
Test Mean	57.2	54.5		4/21	4/20	36	2	3	2	3	3
Trials w/ Data	15	12		1	1	14	10	7	1	1	1
LSD (0.05)	1.6	3.0		2.0	1.0	1.0	0.7	1.0	0.6	0.6	0.7
CV %	4.0	7.1		1.0	1.0	4.0	42.6	31.4	17.1	14.5	15.5
Reps				3	3				3	3	3

Test Weight (lb/bu): Average test weight across 15 locations in 2002 and 12 location in 2003.

Heading Date: Average date after April 1 at Bay, AR 2002, 2003, and 2004.

Height: Averaged over 14 locations in 2004.

Lodging 1 - 9 1 = none 2003, 10 locations. 2004, 7 locations.

Growth Habit 1 - 5 1 = Prostrate 3 = Semi-Erect 5 = Erect Averaged over 3 reps from Bay, AR 2003 & 2004, Bernie, MO 2002.

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Table 5: Leaf Rust

	2002								2004		
	BAR	MMS	LAR	PNC	WNC	PGA	DSC	BRLA (%)	BAR	LAR	PNC
COKER 9436	2	2	3	4	3	4	2	0	2	4	6
COKER 9663	3	5	8	6	3	8	4	15	6	3	2
COKER 9152	1	1	2	2	2	1	1	0	2	1	3
COKER 9184	2	1	2	2	2	2	2	0	2	4	5
26R61	1	2	2	2	2	4	2	0	3	2	3
AGS 2000	1	2	2	3	2	2	1	0	2	2	1
PATTON	2	1	5	4	2	4	1	0	3	3	5
25R26	2	3	7	2	1	5	2	0	5	1	3
KASKASKIA	3	3	5	2	2	7	1	-	3	1	1
Test Mean	2	3	4	4	3	5	2	-	3	3	4
LSD (0.05)	1.1	2.1	1.8	1.0	1.2	2.7	1.9	-	1.6	1.8	1.8
CV %	32.8	36.1	26.0	17.8	26.7	29.3	42.9	-	29.6	43.1	29.4
Reps w/ Data	3	2	3	3	3	2	2	1	3	3	3

Scale 1 – 9 1 = Resistant

BRLA (%): Baton Rouge, LA is percent leaf area covered.

HKY: Henderson, KY; PNC: Plymouth, NC; PGA: Plains, GA; BAR: Bay, AR; MMS: Macon, MS; LAR: Lewisville, AR; WNC: Winterville, NC; DSC: Dillon, SC

COKER 9436**Table 10: Milling and Baking Quality**

	Milling	Baking	Comb.	Micro Test Weight	Softness Equival.	Flour Yield	Flour Protein	Micro AWRC	Cookie Dia.	Top Grade
2002 Crop										
Standard CK 9543	100	100	100	60.6	58.1	73.0	8.78	57.9	17.95	3
COKER 9436	97.8	100.7	97.8	59.0	56.6	72.9	8.56	57.8	18.04	4
Rated Acceptable										
2001 Crop										
Standard CK 9543	100.0	100.0	100.0	61.9	57.5	72.2	9.37	53.45	17.86	4
COKER 9436	98.4	90.7	90.7	60.6	54.5	72.4	9.00	56.50	17.95	5
%AWRC was considered high.										
2000 Crop										
Standard Patton	100	100	100	59.7	55.2	71.9	10.08	54.5	17.78	3
COKER 9436	101.5	109.4	101.5	58.5	57.2	72.1	9.28	52.98	18.16	2
Rated Acceptable										

Quality data from USDA Soft Wheat Quality Lab, Wooster, OH.
2002, 2001, and 2000 ratings are from Syngenta Seeds, Inc. elite trials.

COKER 9436**Table 8: Other Diseases**

	Septoria tritici			Wheat Spindle Streak Virus		Soil Borne Mosaic Virus	
	2001 BRLA	2002 HKY	2003 CMO	2001 BAR	2004 PNC	2002 BMO	2002 UCTN
COKER 9436	2	4	4	6	5	2	3
COKER 9663	3	3	3	4	7	2	4
COKER 9152	6	4	5	3	3	2	4
COKER 9184	2	6	5	5	4	3	1
26R61	2	4	4	2	4	1	3
AGS 2000	3	4	4	6	8	2	6
PATTON	3	4	4	3	3	1	1
25R26	3	5	6	4	4	1	1
KASKASKIA	3	3	6	4	5	2	1
Test Mean	-	4	5	4	4	2	2
LSD (0.05)	-	1.1	1.3	1.3	1.5	1.5	1.5
CV %	-	16.3	16.1	18.0	17.8	44.3	45.4
Reps w/ Data	1	3	3	3	2	3	3
Scale 1 – 9 1 = Resistant							

BRLA: Baton Rouge, LA; HKY: Henderson, KY; CMO: Columbia, MO; BAR: Bay, AR; BMO: Bernie, MO; UCTN: Union City, TN; PNC: Plymouth, NC

COKER 9436**Table 9: Hessian Fly**

Biotypes	2002			2003		2004		
	O	E	L	O	L	O	E	L
COKER 9436	9/4	9/2	0/9	12/0	0/11	1/11	13/0	0/12
COKER 9152	0/14	0/13	0/16	16/0	0/13	7/5	2/8	0/13
PATTON	0/11	16/0	0/9	0/18	0/12	0/14	10/2	0/13
KASKASKIA	0/16	0/14	0/16	0/20	0/17	0/12	0/16	0/12

= Resistant/Susceptible seedlings.

Screening done by USDA-ARS, Crop Production and Pest Control Research Unit, West Lafayette, IN.

COKER 9436**Table 7: Stripe Rust**

	Stripe Rust							
	2000 LAR	2002 LAR	2003 CMO	2003 DAR	2003 LAR	2003 GMS	2003 PGA	2004 DAR
COKER 9436	3	4	4	4	7	3	8	3
COKER 9663	4	5	3	5	6	3	8	2
COKER 9152	3	4	4	3	4	2	8	3
COKER 9184	3	7	5	6	8	3	8	3
26R61	-	2	2	1	2	2	2	1
AGS 2000	-	7	4	6	7	4	8	3
PATTON	7	7	5	7	6	5	8	4
25R26	6	7	4	6	7	3	8	3
KASKASKIA	-	4	3	1	5	1	6	2
Test Mean	4	5	4	4	6	3	6	3
LSD (0.05)	1.1	1.7	1.6	3.4	1.2	2.1		1.4
CV %	16.4	18.8	25.2	41.0	12.5	46.2		34.5
Reps w/ Data	3	3	3	2	3	2	1	3
Scale 1 – 9 1 = Resistant								

LAR: Lewisville, AR; CMO: Columbia, MO; DAR: Dewitt, AR; GMS: Greenville, MS; PGA: Plains, GA;
BRLA: Baton Rouge, LA;

COKER 9436**Table 6: Powdery Mildew**

	2003				2004			
	MJPA	WNC	KNC	DSC	KNC	WNC	DSC	LAR
COKER 9436	1	3	2	2	3	3	2	3
COKER 9663	2	5	5	3	5	3	4	6
COKER 9152	2	5	5	5	5	4	4	3
COKER 9184	1	3	4	2	3	2	2	2
26R61	2	1	2	1	3	3	2	2
AGS 2000	2	1	2	1	2	1	1	1
PATTON	4	3	4	1	5	3	3	6
25R26	2	3	4	2	4	3	4	4
KASKASKIA	4	4	6	3	5	2	4	7
Test Mean	2	3	4	1	4	3	3	4
LSD (0.05)	1.4	1.3	1.6	1.8	1.7	1.3	1.3	2.1
CV %	48.2	28.6	22.2	31.3	21.5	36.1	28.8	30.1
Reps w/ Data	3	3	2	2	2	3	3	3

Scale 1 – 9 1 = Resistant

KNC: Kinston, NC; PGA: Plains, GA; WNC: Winterville, NC; MJPA: Mount Joy, PA; WVA: Warsaw, VA; DSC: Dillon, SC; LAR: Lewisville, AR

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Syngenta Seeds, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER B970051	3. VARIETY NAME COKER 9436
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) P.O. Box 959 Minneapolis, MN 55440 ATTN: Rollin Sears	5. TELEPHONE (Include area code) 763-593-7333	6. FAX (Include area code) 763-542-0194
7. PVPO NUMBER		200500221

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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